

## CHAPTER 1 – PROPOSED PROJECT

### 1.1 INTRODUCTION

The California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) propose to add bus/carpool lanes in the existing median of US 50 from Sunrise Boulevard to downtown Sacramento in Sacramento County. The total length of the project is approximately 13 miles. The proposed improvements include eastbound (EB) and westbound (WB) bus/carpool lanes and CHP enforcement areas in the median at the 6 locations. The project also proposes to include community enhancements identified by project jurisdictions: the City of Sacramento, the City of Rancho Cordova, and Sacramento County. Please refer to Section 1.7 for further information regarding community enhancements.

Figure 1-1 shows the project vicinity and location.

This project was included in the 1998 State Transportation Improvement Program (STIP) with construction scheduled to begin in the fiscal year 2010/2011.

### 1.2 SCOPE OF ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT

This document contains environmental analyses pertaining to the US 50 Bus/Carpool Lanes Project from downtown Sacramento to Sunrise Boulevard in Sacramento County, California. This document satisfies requirements of the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA is the lead agency for NEPA and Caltrans is the lead agency for CEQA.

This Environmental Impact Report/Environmental Assessment (EIR/EA) is an informational document that: 1) informs the public agency decision-makers and the public of the environmental effects of the proposed project; and 2) identifies potential minimization, avoidance, and/or mitigation measures to minimize any adverse impacts.

A Notice of Preparation (NOP) to prepare an EIR was released in June 2005.

[Caltrans has received public comments on the Draft EIR/EA \(Appendix L\). Responses to the comments are included in Appendix M.](#)

### 1.3 PURPOSE AND NEED

Commute travel on US 50 is heavily congested with extensive periods of stop-and-go traffic. Residential, commercial, and employment development in the US 50 corridor is projected to continue growing at a substantial rate with strong job growth in downtown Sacramento, Rancho Cordova, and the City of Folsom. Personal mobility and reliable commute times are declining in the corridor due to increasing traffic congestion on US 50. Downtown Sacramento job growth is increasing the number of commuters and commute buses that travel through residential neighborhoods from freeway exits to employment sites.

The project purpose is to:

- Improve mobility.
- Provide an option for reliable peak period travel time.
- Improve traffic operations by reducing congestion and travel time.
- Use the highway facilities as efficiently as possible.
- Provide incentives for commuters to use carpools, vanpools, or buses for peak period travel.

- Identify specific strategies and projects to improve the adjacent street system so as to enhance neighborhood livability.
- Coordinate with other projects and studies being conducted in the corridor.

### Existing Facility

The existing facility within the project limits is an 8-lane urban freeway with auxiliary lanes at various locations. US 50, one of the country's last intact transcontinental highways (Lincoln Highway), connects West Sacramento with Ocean City, Maryland (a distance of 3,073 miles). In Sacramento, US 50 was constructed in the mid/late 1920s along what is today Folsom Boulevard. Beginning in the mid 1960s, US 50 in Sacramento County was reconstructed as an 8-lane freeway along a new alignment. The new alignment joined the existing alignment east of Sunrise Boulevard.

### Traffic Conditions

US 50 serves an important transportation corridor, linking downtown Sacramento with suburban areas to the east. The roadway also serves inter-regional travel within the state of California and interstate travel east to Nevada and beyond. The corridor has experienced substantial growth over the last thirty to forty years. Growth in the corridor is expected to continue, as suburban development occurs in the eastern portions of unincorporated Sacramento County, the City of Rancho Cordova, the City of Folsom, and El Dorado County. The Sacramento Area Council of Governments (SACOG) has identified the City of West Sacramento, Downtown Sacramento, Power Inn/South Watt, Mather/Rancho Cordova, Aerojet, and South Folsom as areas of high growth.

Table 1-1 at the end of this section summarizes existing (2004) and projected year 2030 daily traffic volumes in the corridor. Increased traffic volumes of 57 to 75 percent are anticipated in this segment of the US 50 corridor between Interstate 5 downtown Sacramento and Sunrise Boulevard.

Both westbound A.M. and eastbound P.M. directions during current peak hours operate at Level of Service (LOS) F (Table 1-2). LOS F is defined as very congested with traffic jams, especially where vehicles merge (Figure 1-2). By 2030, LOS will remain at F (Table 1-3). The Caltrans District 3 Draft US 50 Transportation Concept Report (TCR) and District System Management Plan (August 1992) both propose a concept LOS E for US 50 in Sacramento County.

Today's congestion typically lasts from one-and-a-half hours to two-and-a-half hours at various locations in the corridor. Congestion is defined by Caltrans as speeds of less than 35 mph, and lasting 15 minutes or more. By the year 2030, congestion will last from three to four hours during both the morning and afternoon commutes.

### Accidents

The Caltrans Traffic Accident Surveillance and Analysis System (TASAS) data for the three-year period July 1, 2002 through June 30, 2005 is summarized in Table 1-4.

Within the three-year period, there were 2,707 accidents with 4 fatalities along US 50 from the Oak Park Interchange to Sunrise Boulevard. Fifty-eight percent of the total accidents reported for the three year period were rear end type collisions, 17% were hit object, and 15% sideswipe.

The total accident rate was higher than the average rate for a similar highway segment statewide. However, the fatality rate was lower than the statewide average.

These statistics indicate that slowdowns, lane changing, and congestion were the main cause of accidents within the project area. These types of collisions are indicative of a congested area. The

proposed project would increase capacity, reduce congestion, and contribute to a decrease in delays and lower overall accident rates.

### Existing Pavement

The existing Portland cement concrete (PCC) pavement was constructed between 1960 and 1973. Major rehabilitation work is expected within the typical 30-year PCC pavement life. Such rehabilitation could be coordinated with construction of the proposed median bus/carpool lanes, thus allowing flexibility in staging and lane closures during construction.

## **1.4 PROJECT DESCRIPTION**

The project is located in Sacramento County on U.S 50 from 27<sup>th</sup> Street in downtown Sacramento to Sunrise Boulevard. The project covers a distance of approximately 13 miles. Within the limits of the proposed project, the number of lanes in each direction varies from three to six. Lane widths are 12 feet, with 8 to 10 foot shoulders.

## **1.5 ENVIRONMENTAL SETTING**

The project site stretches from downtown Sacramento, through the City of Rancho Cordova, and to the eastern portion of Sacramento County. The climate fluctuates with the seasons with hot dry summers and cool wet winters. Average annual rainfall in the project area is approximately 22 inches. Elevations range throughout the project site from between 15 to 110 ft. The project is located in the Sacramento West, Sacramento East, and Carmichael United States Geological Survey (USGS) topographic quadrangles.

The project is located within a highly developed urban area. Land uses near the project area include residential, commercial, and industrial development. The commercial and industrial developments tend to be clustered near the interchanges. Several public parks, including Coloma Park, Oki Park, Glenbrook Park, Salmon Falls Park, and White Rock Park are adjacent to the project.

The freeway corridor itself dominates the visual nature of the project area. US 50 is a major route that traverses California from its western limits west of Sacramento to the California/Nevada border and continuing east toward the northeastern United States, terminating in Maryland. The freeway is a predominant commercial and recreational route serving the Sacramento Valley, Sierra foothills, and Lake Tahoe communities.

A portion of US 50, from Bradshaw Road to the Sacramento – El Dorado County Line, has been designated as the William Alexander Leidesdorff, Jr., Memorial Highway. William Alexander Leidesdorff, Jr. was a prominent African-American civic leader and early California pioneer. A sign showing the designation is located along eastbound US 50 east of Bradshaw Road.

## **1.6 ALTERNATIVES**

Originally, four build alternatives and the No-Build were evaluated as part of the project; Alternatives 5B, 6B, 7B, and 10D. Later, as a result of community concerns and cost considerations, Alternatives 10D-1, 10D-2, and 10D-3 were added as variations to Alternative 10D. The alternatives were analyzed extensively in the environmental technical studies (listed in Appendix H).

As a result of the technical analysis, two of the built alternatives (Alternative 10D-1 and 10D-3), along with the No-Build alternative, were carried forward as the project alternatives included in the draft EIR/EA. The project alternatives are described below, shown on Figure 1-3 (a-c), and summarized in Table 1-5.

Alternatives considered but eliminated from further discussion as a result of the technical studies, alternatives considered but eliminated as a result of and after the Technical Advisory Committee (TAC) and Corridor Advisory Committee (CAC) processes, and other alternatives considered but eliminated are also included in this section.

### 1.6.1 Project Alternatives

Two build alternatives and the No-Build were evaluated for the project: Alternatives 10D-1 and 10D-3.

- **Alternative 10D-1**

Alternative 10D-1 proposes to construct bus/carpool lanes from Sunrise Boulevard to the Oak Park Interchange. Between Stockton Boulevard and Bradshaw Road, the existing 36-foot median will accommodate the bus/carpool lanes without outside widening. The width of the median shoulders, bus/carpool lane, and No. 1 and 2 mixed flow lanes would be non-standard; design exceptions for the widths have been approved. Lanes are numbered from left to right, with the leftmost lane (or fast lane) the No. 1 lane. Between Bradshaw Road and Sunrise Boulevard, the existing 22-foot median isn't sufficient to accommodate the bus/carpool lanes. Outside widening within the existing State right of way is proposed through this section to provide standard-width lanes and shoulders. The Elmhurst Viaduct, Brighton Overhead, Folsom Blvd Undercrossing, and State College Undercrossing will be widened in the median. The West Citrus Overhead would be widened on the outside. These structures are shown on Figure 1-3a.

Under Alternative 10D-1, the EB bus/carpool lane would begin at 27<sup>th</sup> Street. The WB bus/carpool lane would end at 28<sup>th</sup> Street and become a mixed flow lane. The WB bus/carpool lane transitions into the existing No. 1 mixed flow lane by dropping the outside mixed flow lane (No. 4) at the 26<sup>th</sup>/W Street off-ramp. All lanes would shift to the right and the actual lane drop would occur at the existing option lane at 26<sup>th</sup> Street. The project would end at this point and no work would be done to the W-X portion of the freeway (see Figure 1-3a). Alternative 10D-1 is approximately 12.6 miles in length.

Only minor improvements are currently proposed for interchanges between Stockton and Sunrise Boulevards. At the Mather Field and Zinfandel interchanges, ramp widening is proposed for the EB off-ramp, the EB diamond on-ramp, the EB loop on-ramp and the WB loop on-ramp. At the Zinfandel Interchange, ramp widening is proposed for the EB off-ramp, the EB diamond on-ramp and the EB loop on-ramp. Currently, the only additional right of way required for all alternatives is two small slivers of acquisitions from commercial properties for ramp widening at the Zinfandel Drive Interchange (Figures 2.1-1m and 1n).

- **Alternative 10D-3/Preferred Alternative**

*Alternative 10D-1, which would extend the bus/carpool lanes into the City of Sacramento, was opposed by the City and various community groups. Alternative 10D-3 does not extend into the City of Sacramento. The Alternative 10D-3 portion (Watt Avenue to Sunrise Boulevard) also was programmed for Corridor Mobility Improvement Account (CMIA) funding by the California Transportation Commission, whereas Alternative 10D-1 was not programmed. The No-Build Alternative would not implement any of the improvements included in the project, meet the need and purpose of the project, or give commuters incentive to use buses or carpools during peak commute periods. Therefore, upon consideration of comments received during the public review period, Caltrans has selected Alternative 10D-3 as the preferred alternative.*

Alternative 10D-3, which is the preferred alternative, proposes to construct bus/carpool lanes in the median from Sunrise Boulevard to Watt Avenue. Between Watt Avenue and Bradshaw Road, the existing 36-foot median will accommodate the bus/carpool lanes without outside widening. Between Bradshaw Road and Sunrise Boulevard, the existing 22-foot median isn't sufficient to accommodate the

bus/carpool lanes. Outside widening is proposed through this section to provide standard-width lanes and shoulders. The West Citrus Overhead would be widened on the outside.

The EB bus/carpool lane would begin just east of Watt Avenue. The WB bus/carpool lane would end prior to the Watt Avenue WB off-ramp. The WB bus/carpool lane transitions into the existing No. 1 mixed flow lane by dropping the outside mixed flow lane at the Watt Avenue off-ramp. All lanes would shift to the right and the actual lane drop would occur at the existing trap lane to northbound Watt Avenue (a trap lane is a traffic lane that becomes a mandatory off-ramp). The project would end at this point and no work would be done west of this location (see Figure 1-3b).

Only minor improvements are currently proposed for interchanges between Stockton and Sunrise Boulevards. At the Mather Field and Zinfandel interchanges, ramp widening is proposed for the EB off-ramp, the EB diamond on-ramp, the EB loop on-ramp and the WB loop on-ramp. At the Zinfandel Interchange, ramp widening is proposed for the EB off-ramp, the EB diamond on-ramp and the EB loop on-ramp. Currently, the only additional right of way required for all alternatives is two small slivers of acquisitions from commercial properties for ramp widening at the Zinfandel Drive Interchange (Figures 2.1-1m and n). Alternative 10D-3 is approximately 7.0 miles in length.

- **No-Build Alternative**

The No-Build Alternative would not implement any of the improvements involved in the project. The No-Build Alternative would not meet the need and purpose of the project since it does not address mobility, or give commuters incentive to use buses or carpools during peak commute periods.

### **1.6.2 Alternatives Considered But Eliminated from Further Discussion**

Caltrans approved Project Study Reports (PSR) for this project in January and February 1998. One PSR addressed operational improvements between 9th Street downtown Sacramento and Mayhew Road and the other between Mayhew Road and Prairie City Road. The PSR for the first segment developed six bus/carpool alternatives, varying in the locations of bus/carpool drop ramps in the downtown area. The PSR for the second segment developed 2 alternatives: one with 10 foot median shoulders, and one with 10 foot median shoulders through the interchanges and 14 foot median shoulders between interchanges. The 14-foot shoulder accommodated a continuous CHP enforcement area. With the 10-foot shoulder alternative, the median barrier would be offset to provide spot enforcement areas at 1.8 – 2.5 mile intervals.

A Supplemental PSR was developed and approved in August 2001. It combined the first segment and a portion of the second segment (Mayhew Road to Sunrise Blvd) for new study limits from 9th Street to Sunrise Boulevard. The Supplemental PSR carried forward the 6 alternatives from the first segment PSR while developing 9 additional alternatives. The 2 alternatives for the freeway between Mayhew Road and Sunrise Boulevard were also carried forward.

The PSR and Supplemental PSR alternatives were presented to the Technical Advisory Committee (TAC) during two separate meetings held in July and August of 2003. The TAC consisted of Caltrans staff as well as representatives from the City of Sacramento, County of Sacramento, Regional Transit (RT), and the Sacramento Area Council of Governments (SACOG). For each alternative, there was a general discussion of the pros and cons. The TAC was then polled for a consensus on recommending whether an alternative should be carried forward or set aside.

The alternatives were also presented to the Corridor Advisory Committee (CAC), which was organized for this project. The CAC was comprised of volunteer representatives from a broad range of neighborhood, business, and activist groups. The CAC was chartered to provide input regarding the impacts that the various proposed alternatives would have on the local community, as well as community enhancements throughout the project corridor. At one CAC meeting, all of the alternatives from the Supplemental PSR were presented. At future meetings, only the alternatives proposed by the

TAC to be carried forward were presented. Members of the CAC discussed the merits of each of the alternatives and provided comments on the perceived impacts to the community. Their comments are documented in the CAC Final Report, which is available from Caltrans.

The results of the TAC and CAC meetings were the recommendation that 4 of the 15 approved build alternatives, and the no-build alternative, be carried forward for preliminary engineering studies and environmental analysis. The remaining 11 alternatives would be set aside.

#### **1.6.2.1 Alternatives Considered But Eliminated as the Result of the Technical Studies**

##### **Alternative 5B**

Alternative 5B was originally recommended by the TAC and CAC to be carried forward as a viable alternative. Alternative 5B proposed an EB bus/carpool drop on-ramp in the median at 10th Street and a WB bus/carpool drop off-ramp at 16th Street. In order to avoid a trap lane, the WB bus/carpool lane would transition from the existing median east of the Oak Park Interchange to the existing No. 1 lane west of the Oak Park Interchange. A bus/carpool ramp lane would then be constructed in the median to transition to the drop ramp.

In order to avoid outside widening, the proposed EB drop on-ramp was raised above the existing elevated freeway section between Riverside Boulevard and 28th Street. Elevating the EB ramp provides space in the median to accommodate the WB drop ramp.

This alternative was expected to improve freeway operations in the downtown section of US 50 because the weaving would be reduced with bus/carpool drop ramps in both directions. Vehicles using the EB bus/carpool ramp would not be able to travel north on State Route (SR) 51 or south on SR 99 (Oak Park Interchange) as the ramp touches down past the connectors.

During the June 2005 public workshops, Alternative 5B was presented as one of the proposed alternatives carried forward for analysis in the environmental document. However, after the public workshops, in subsequent newspaper editorials and at city council meetings, Caltrans received many negative comments from members of the public, as well as from various public officials, regarding Alternative 5B. The alternative also had the potential for adverse visual, noise, and community impacts.

Although Alternative 5B was recommended by the TAC to be carried forward, it was later eliminated because of public controversy and potential environmental impacts.

##### **Alternative 6B**

Alternative 6B was originally recommended by the TAC and CAC to be carried forward as a viable alternative. Alternative 6B proposed an EB bus/carpool on-ramp at 10<sup>th</sup> Street and a WB bus/carpool off-ramp at 21<sup>st</sup> Street. In order to avoid a trap lane, the WB bus/carpool lane would transition from the existing median east of the Oak Park Interchange to the existing No. 1 lane west of the Oak Park Interchange. A bus/carpool ramp lane would then be constructed in the median to transition to the drop ramp.

This alternative required about 14 feet of widening on the outside of the EB lanes between about 19<sup>th</sup> Street and 25<sup>th</sup> Street so that the EB bus/carpool lane avoids the proposed WB bus/carpool off-ramp at 21<sup>st</sup> Street.

New structures for the EB and WB bus/carpool ramps were required. The EB bus/carpool on-ramp required minor modifications to the 10<sup>th</sup> Street Undercrossing and the Riverside Blvd Undercrossing. The WB bus/carpool off-ramp required minor modifications to the second half of the Camellia City Viaduct. The 15<sup>th</sup>-16<sup>th</sup> Street Separation, the first half of the Camellia City Viaduct, and the 26<sup>th</sup> Street

Undercrossing would be decked in the median. The Camellia City Viaduct would also be widened on the north side of the WB structure. The WB on-ramp at 21<sup>st</sup> Street also required the permanent closure of 22<sup>nd</sup> Street to vehicular traffic.

Alternative 6B was dropped as a viable alternative for the following reasons:

- Alternative 6B would convert an existing mainline lane to a bus/carpool weave lane on the approach to the WB drop off-ramp at 21<sup>st</sup> Street. The Traffic Study concluded that the corresponding bottleneck caused by the loss of the mainline lane, negated the benefits of the bus/carpool drop ramp. Converting the existing WB mainline lane to accommodate the bus/carpool lane drop off-ramp severely affected traffic flow, reducing volumes and speeds.
- Alternative 6B is not compatible with the future bus/carpool lane connector projects at the I-5 and SR 99/I-80 interchanges because the design features of Alternative 6B (location of columns, design of drop off- and on-ramps) may conflict with the bus/carpool connectors.
- Potential change in neighborhood traffic patterns on adjacent surface streets along the W – X portion of the freeway.
- Potential conflict with bicyclists at the drop off-ramp.
- As of November 2006, the estimated cost of constructing Alternative 6B was approximately \$208 million. The Sacramento Transportation Authority, however, has authorized \$200 million for the project. It is anticipated that material and construction cost will continue to escalate. This alternative cannot be constructed as funded.

#### **Alternative 7B**

Alternative 7B was originally recommended by the TAC and CAC to be carried forward as a viable alternative. Alternative 7B proposed an EB bus/carpool on-ramp at 21<sup>st</sup> Street and a WB bus/carpool off-ramp at Riverside Boulevard. In order to avoid a trap lane, the WB bus/carpool lane would transition from the existing median east of the Oak Park Interchange to the existing No. 1 lane west of the Oak Park Interchange. A bus/carpool ramp lane would then be constructed in the median to transition to the drop ramp.

New structures for the proposed EB and WB bus/carpool ramps were required. The WB bus/carpool off-ramp required minor modifications to the Riverside Blvd Undercrossing. The EB bus/carpool on-ramp required minor modifications to the Camellia City Viaduct. The remaining portions of the viaduct, the 15<sup>th</sup>-16<sup>th</sup> Street Separation, and the 26<sup>th</sup> Street Undercrossing would be decked in the median. Unlike Alt. 6B, Alt. 7B would not require the closure of 22<sup>nd</sup> Street to vehicular traffic.

Alternative 7B was dropped as a viable alternative for the following reasons:

- Similar to Alternative 6B, Alternative 7B would convert an existing mainline lane to a bus/carpool weave lane on the approach to the WB drop off-ramp, this time at Riverside Boulevard/11<sup>th</sup> Street. The Traffic Study concluded that the corresponding bottleneck caused by the loss of the mainline lane, negated the benefits of the bus/carpool drop ramp. Converting the existing WB mainline lane to accommodate the bus/carpool lane drop off-ramp severely affected traffic flow, reducing volumes and speeds.
- Alternative 7B is not compatible with the future bus/carpool lane connector projects at the I-5 and SR 99/I-80 interchanges because the design features of Alternative 7B (location of columns, design of drop off- and on-ramps) may conflict with the bus/carpool connectors.
- Potential change in neighborhood traffic patterns on adjacent surface streets along the W – X portion of the freeway.
- Potential conflict with bicyclists at the drop off-ramp.
- As of November 2006, the estimated cost of construction Alternative 7B is approximately \$206 million. The Sacramento Transportation Authority, however, has authorized \$200

million for the project. It is anticipated that material and construction cost will continue to escalate. This alternative cannot be constructed as funded.

#### **Alternative 10D**

Alternative 10D was originally recommended by the TAC and CAC to be carried forward as a viable alternative. Alternative 10D involved constructing bus/carpool lanes in the median without drop ramps. The bus/carpool lanes would begin east of the 9<sup>th</sup> Street Undercrossing. The following downtown structures would require widening in the median: 10<sup>th</sup> Street Undercrossing, Riverside Blvd Undercrossing, 15<sup>th</sup>-16<sup>th</sup> Street Separation, the Camellia City Viaduct, and the 26<sup>th</sup> Street Undercrossing.

Alternative 10D was dropped as a viable alternative for the following reasons:

- Alternative 10D would exacerbate the weave condition on the WB W/X section of US 50. According to the Traffic Study, Alternative 10D performed worse than other bus/carpool alternatives because buses and carpool vehicles would be forced to use the existing off-ramps, mixing with other vehicles in the non-bus/carpool lanes.
- As of November 2006, the estimated cost of construction Alternative 10D is approximately \$193 million. The Sacramento Transportation Authority, however, has authorized \$200 million for the project. Anticipated escalations in material and construction costs are expected to result in project costs exceeding \$200 million. This alternative cannot be constructed as funded.

#### **Alternative 10D-2**

Alternative 10D-2 included bus/carpool lanes in the median from Sunrise Boulevard to Howe Avenue. The bus/carpool lane would convert into the existing No. 1 lane at Howe Avenue and all lanes would shift to the right and connect to the existing option trap lane to Howe Avenue. The project would end at this point and no work would be done west of this location.

Alternative 10D-2 was dropped as a viable alternative for the following reasons:

- Ending the WB lane at this location would create a double trap lane, where a single trap lane existed previously. A double trap condition can cause significant weaving congestion. Therefore, Alternative 10D-2 is not recommended.

### **1.6.2.2 Alternatives Considered But Eliminated as a Result of the TAC and CAC Process**

#### **Alternative 5B Modified**

Alternative 5B Modified was a revised version of Alternative 5B (see Section 1.6.2.1), proposing a westbound (WB) bus/carpool drop off-ramp at 16th Street downtown. No EB bus/carpool drop on-ramp was proposed; the EB bus/carpool lane would begin about 21st Street. In order to avoid a trap lane, the WB bus/carpool lane would transition from the existing median east of the Oak Park Interchange to the existing No. 1 lane west of the Oak Park Interchange. A bus/carpool ramp lane would then be constructed in the median to transition to the drop ramp.

This alternative was expected to improve freeway operations in the WB direction of the downtown section of US 50 because the weaving would be reduced with the bus/carpool drop off-ramp. There would potentially be a change to the EB weave. Vehicles would enter the freeway using existing mixed flow ramps. Vehicles intending to use the bus/carpool lane would be expected to try to enter the bus/carpool lane as soon as possible, potentially exacerbating the existing weave.



Alternative 5B Modified was eliminated because an alternative that provided a WB bus/carpool drop off-ramp without an EB bus/carpool drop on-ramp is unbalanced. It was an efficient way for bus/carpool traffic to get downtown, but not out of downtown.

#### **Alternative 6B Modified**

Alternative 6B Modified was a revised version of Alternative 6B, proposing a WB bus/carpool drop off-ramp at 21st Street. No eastbound bus/carpool drop on-ramp was proposed; the EB bus/carpool lane would begin about 26th Street. In order to avoid a trap lane, the WB bus/carpool lane would transition from the existing median east of the Oak Park Interchange to the existing No. 1 lane west of the Oak Park Interchange. A bus/carpool ramp lane would then be constructed in the median to transition to the drop ramp.

This alternative was expected to improve freeway operations in the WB direction of the downtown section of US 50 because the weaving would be reduced with the bus/carpool drop off-ramp. There would potentially be a change to the EB weave. Vehicles would enter the freeway using existing mixed flow ramps. Vehicles intending to use the bus/carpool lane would be expected to try to enter the bus/carpool lane as soon as possible, potentially exacerbating the weaving.

Alternative 6B Modified was set aside because an alternative that provided a WB bus/carpool drop off-ramp without an EB bus/carpool drop on-ramp is unbalanced. It was an efficient way for bus/carpool traffic to get downtown, but not out of downtown.

#### **Alternative 7B Modified**

Alternative 7B Modified was a revised version of Alternative 7B, proposing a WB bus/carpool drop off-ramp at Riverside Boulevard. No eastbound bus/carpool drop on-ramp was proposed; the EB bus/carpool lane would begin about 25th Street. In order to avoid a trap lane, the WB bus/carpool lane would transition from the existing median east of the Oak Park Interchange to the existing No. 1 lane west of the Oak Park Interchange. A bus/carpool ramp lane would then be constructed in the median to transition to the drop ramp.

This alternative was expected to improve freeway operations in the WB direction of the downtown section of US 50 because the weaving would be reduced with the bus/carpool drop off-ramp. There would potentially be a change to the EB weave. Vehicles would enter the freeway using existing mixed flow ramps. Vehicles intending to use the bus/carpool lane would be expected to try to enter the bus/carpool lane as soon as possible, potentially exacerbating the weaving.

Alternative 7B Modified was set aside because an alternative that provided a WB bus/carpool drop off-ramp without an EB bus/carpool drop on-ramp is unbalanced. Alternative 7B provided an efficient way for bus/carpool traffic to get downtown, but not out of downtown.

#### **Alternative 10**

Alternative 10 proposed to construct bus/carpool lanes in the median without drop ramps. The bus/carpool lanes would begin east of the 10th Street Undercrossing. This alternative was very similar to Alternative 10D, but did not go as far to the west. Alternative 10 was set aside in favor of Alternative 10D.

#### **Alternative 7B-10**

Alternative 7B-10 was a hybrid of Alternatives 7B and 10. The alternative proposed a WB bus/carpool drop off-ramp at Riverside Boulevard. No eastbound bus/carpool drop on-ramp was included; the EB bus/carpool lane would begin about 16th Street. In order to avoid a trap lane, the WB bus/carpool lane would transition from the existing median east of the Oak Park Interchange to the existing No. 1 lane west of the Oak Park Interchange. A bus/carpool ramp lane would then be constructed in the median to transition to the drop ramp.

This alternative was expected to improve freeway operations in the WB direction of the downtown section of US 50 because the weaving would be reduced with the bus/carpool drop off-ramp.

Alternative 7B-10 was set aside because an alternative that provided a WB bus/carpool drop off-ramp without an EB bus/carpool drop on-ramp is unbalanced. Alternative 7B-10 presented an efficient way for bus/carpool traffic to get downtown, but not out of downtown.

### **Alternative Minimum Project**

Alternative Minimum Project proposed to end the bus/carpool lanes in the median prior to downtown. The bus/carpool lanes would begin east of the 26<sup>th</sup> Street Undercrossing.

This alternative was expected to have no impact or a slight degradation to freeway operations in the downtown section of US 50. As the bus/carpool lane ends, WB drivers would have to decide when to begin weaving in order to exit at their desired location, as they currently do. The bus/carpool lane would potentially encourage drivers to stay in the bus/carpool lane for as long as possible before weaving. Other drivers, leery of the weave, would chose to exit the bus/carpool lanes earlier, potentially reducing the operational effectiveness of the bus/carpool lane.

The improvements proposed with Alternative Minimum Project are already covered under Alternative 10D-1.

### **Alternative 10A**

Alternative 10A was a refinement of Alternative Minimum Project. This alternative also proposed to end the bus/carpool lanes in the median prior to downtown. The bus/carpool lanes would begin east of the 26th Street Undercrossing. As the WB bus/carpool lane ends by transition the lane into the existing No. 1 mixed flow lane, the outside mixed flow lane becomes an exit only lane. Alternative 10A recommended that the outside mixed flow lane become an exit only at the connector to southbound State Route 99. The only difference between Alternative 10A and Alternative Minimum Project was that 10A specified where the mandatory exit takes place.

### **Alternative 10B**

Alternative 10B was a refinement of Alternative Minimum Project. This alternative proposed to end the bus/carpool lanes in the median prior to downtown. The bus/carpool lanes would begin east of the 26th Street Undercrossing. As the WB bus/carpool lane ends by transition the lane into the existing No. 1 mixed flow lane, the outside mixed flow lane becomes an exit only lane. Alternative 10B proposed that the outside mixed flow lane become an exit only at the W Street off-ramp that terminates at the W/26th Street intersection. The only difference between Alternative 10B and Alternative Minimum Project was that 10B specified where the mandatory exit takes place.

### **Alternative 10C**

Alternative 10C proposed to construct bus/carpool lanes in the median without drop ramps. The bus/carpool lanes would begin east of Riverside Boulevard. This alternative was expected to have no impact or a slight degradation to freeway operations in the downtown section of US 50. WB drivers would have to decide when to begin weaving in order to exit at their desired location, as they currently do. The bus/carpool lane would potentially encourage drivers to stay in the bus/carpool lane for as long as possible before weaving. Other drivers, leery of the weave, would chose to exit the bus/carpool lanes earlier, potentially reducing the operational effectiveness of the bus/carpool lane.

Alternative 10C was very similar to Alternative 10D, but didn't extend as far to the west. Alternative 10C was set aside in favor of Alternative 10D.

### **Alternative 13**

Alternative 13 involved construction of bus/carpool drop ramps at Alhambra Boulevard, just east of the downtown section. The EB bus/carpool lane would begin with the ramp; the WB bus/carpool lane would transition out of the median around Stockton Boulevard to avoid a trap lane.

This alternative spawned two refinements that were presented to the TAC. An alternative to provide only a WB bus/carpool drop off-ramp (Alternative 13 Modified), and an alternative that would drop the outside mixed flow lane prior to Stockton Boulevard (Alternative 13B) were developed. The proposed profile of the drop ramps provided very smooth transitions onto the mainline highway.

This alternative was expected to have an improvement to freeway operations in the downtown section of US 50 by diverting some vehicles that currently enter/exit the freeway in the W-X Section to the Alhambra bus/carpool drop ramp.

There was as wide range of discussion on this alternative. Adding ramps at a new location was expected to have adverse impacts to local circulation. An extensive traffic study, including an Origin-Destination Study, would be needed to fully evaluate the traffic pattern changes. Whether these changes would improve or degrade circulation was a critical point of discussion. Ultimately, the TAC agreed that the studies required to fully evaluate the changes to local street traffic circulation patterns would greatly exceed a reasonable level of effort. As a result, Alternative 13 was set aside.

#### **1.6.2.3 Other Alternatives Considered But Eliminated**

A number of other transportation alternatives were analyzed as part of other studies. These alternatives are described below.

#### **US 50 Corridor Major Investment Study**

In 1996, SACOG, in collaboration with Regional Transit, Caltrans, the Sacramento Metropolitan Air Quality Management District, and other cities and counties along the corridor, completed the US 50 Corridor Major Investment Study (MIS). The purpose was to consolidate all of the planning efforts and decide on a corridor-wide investment strategy, focusing on phasing major improvements within a 20-year period. As part of the study, alternatives were considered, but not chosen for future study (SACOG 1996; DKS Associates 1995). Below is a description of those alternatives.

##### *Single-Direction or Reversible High Occupancy Vehicle (HOV) Lane Alternative*

The cost of building one additional median HOV lane was 70 to 80% of the cost of building bi-directional HOV lanes. The Major Investment Study Technical Advisory Committee rejected this alternative as not being cost-effective. It was also rejected because of the expected future growing bi-directional commute in the corridor (traffic in both directions during AM and PM peak commutes), a trend detailed in the Traffic Study for the US 50 bus/carpool lane project.

##### *Transit-Only Alternative*

In 1993, SACOG initiated the HOV – US 50 Corridor Study in order to determine the optimum phasing strategy for light rail and HOV lanes rather than a transit-only alternative. The assumption of the HOV – US 50 corridor study was that both light rail extensions and HOV lanes were necessary to alleviate congestion in the corridor as well as increase mobility through more travel options. This assumption was justified as a result of the analysis; a multi-modal strategy was seen as the best strategy to alleviate congestion and improve accessibility in the US 50 corridor. Four phasing approaches (A, B, C, and D) were therefore designed to be multi-modal (SACOG 1996).

#### **Sac 50 Bus/Carpool Lanes Traffic Report (2006)**

Several alternatives were analyzed as part of the 2006 Traffic Report completed for the project (a copy of the traffic study is available from Caltrans):

##### *Mixed Flow Alternative*

The mixed flow lane comparison involved construction of an additional mainline lane in the median between the project limits. This additional lane would be unrestricted, but would require special treatment in the eastbound direction at the connection to the existing bus/carpool lane at the Sunrise Boulevard Interchange. The added mixed flow lane cannot connect directly to the existing bus/carpool lane at this location. Excessive violations, confusion, and unsafe lane changes would result. The existing eastbound bus/carpool lane at Sunrise Blvd Interchange must be accessed by a lane change at the start of the bus/carpool lane. This requires a lane shift of the mixed flow lanes to the right, thus creating an undesirable lane configuration and would increase congestion at this location. The traffic model also showed that all bus/carpool alternatives carried more people than the mixed flow and no-build alternatives in design years 2020 and 2030.

From the beginning of the project's planning, SACOG proposed it as a bus/carpool lane project, as discussed in Section 1.9. The 2005/07 SACOG MTIP identified bus/carpool lane alternatives for US 50. Projects included in the MTIP are consistent with SACOG's Metropolitan Transportation Plan and are part of the area's overall strategy for providing mobility, congestion relief and reduction of transportation-related air pollution in support of efforts to attain federal air quality standards for the region.

Furthermore, the Measure A Half-Cent Sales Tax on the Sacramento County 2004 ballot included carpool lane projects, not mixed-flow alternatives.

#### Full Bus/Carpool Conversion Alternative (Take a Lane)

The study found that this alternative was the poorest performer of all alternatives studied; highest level of congestion, lowest average speeds, and lowest throughput volumes. Throughput is the number of vehicles passing a given point during a given period of time. For these reasons, no further analysis was conducted on this alternative.

#### Partial Bus/Carpool Conversion Alternative

The partial bus/carpool conversion alternative involves adding bus/carpool lanes between Sunrise Boulevard and the 50/99/51 Interchange, and then converting the existing median lane to bus/carpool use from that point to east of I-5. Queuing and congestion occurred in the traffic model starting at the W-X section and backed up to Howe Avenue, due to the bottleneck effects on the W-X section of US 50. This is because capacity was reduced by the bus/carpool conversion on the W-X section. The partial bus/carpool conversion option and the full conversion option performed worse than all of the bus/carpool build alternatives.

In general, conversion of existing lanes to bus/carpool use is only advisable when the lane usage is relatively light before the conversion. This section of US 50 experiences very high levels of traffic during the commute periods, therefore, the full bus/carpool lane conversion and the partial bus/carpool conversion scenarios are not recommended.

#### **High Occupancy Toll (HOT) Lane**

Dowling Associates prepared an evaluation of the cost-effectiveness of converting a bus/carpool lane to a high occupancy toll (HOT) lane. The study concluded that the HOT lane concept for this project was not cost-effective for the following reasons:

- Projected congestion in the US 50 corridor through 2030 will not be great enough to generate toll rates and revenues necessary to generate a positive cost/benefit ratio.
- The HOT lane has a limited number of access points (necessary for toll collection and enforcement purposes). Bus/carpools have more freedom to switch to the HOV lane. But with the limited number of access points for the HOT lane, a number of bus/carpools are forced to use the general-purpose lanes. These bus/carpools experience increased time costs, and cause more congestion in the general-purpose lanes (Dowling 2006).

## Other Alternatives

### Barrier-Separated or Buffer-Separated Bus/Carpool Lanes

Alternatives to separate the bus/carpool lane from the adjacent mixed flow lanes, either with a striped buffer or a concrete barrier, were considered and rejected. These alternatives would require extensive outside widening (requiring excessive costs) or taking an existing mixed flow lane, substantially reducing operational capacity. Access to the bus/carpool lanes would only be at ingress/egress points located along the corridor.

### Reversible Bus/Carpool Lane

Constructing a reversible bus/carpool lane was considered and rejected. The cost would have been almost the same as constructing a bus/carpool lane in each direction. The reversible lane would limit the ingress/egress points and require continuous maintenance of the lane switching mechanism. The directional split between commute directions would not conducive to a reversible lane.

## 1.7 COMMUNITY ENHANCEMENT

Community enhancements (elements proposed to improve the street system adjacent to US 50 to enhance neighborhood livability) were originally identified during the citizen advisory committee (CAC) meetings in 2003. In January 2006, the City of Sacramento, the City of Rancho Cordova, and Sacramento County were requested to submit a list of community enhancements they would like included within their jurisdiction. Specific suggestions include sound walls (beyond those proposed), landscape improvements, and pedestrian/bicycle improvements.

In June 2006, Caltrans informed the cities of Sacramento and Rancho Cordova and Sacramento County of the following:

- A maximum of \$15 million might be available for community enhancements, [depending on which alternative is selected as the preferred](#).
- This amount would be divided based upon the proportional length of the project within each jurisdiction.
- The proportion would be determined once the final project alternative is approved.

[Please refer to Appendix K for correspondence regarding community enhancements.](#)

[Alternative 10D-3 has been selected as the preferred alternative. This alternative does not extend into the City of Sacramento, and as a result, the City no longer qualifies for community enhancement funds. The estimated capital construction cost for Alternative 10D-3 is approximately \\$120 million.](#)

[Caltrans is committed to provide funding for community enhancements within the project limits up to 10% of the capital construction cost \(up to approximately \\$12 million - about \\$4 million within county limits and \\$8 million within the Rancho Cordova city limits\).](#)

[The county requested sound walls near Watt Avenue and a separate pedestrian overcrossing \(POC\) at Bradshaw Road. Based on the preliminary cost estimates, the sound walls near Watt Avenue will be part of the community enhancement feature of the project. However, the cost of a POC at Bradshaw Road far exceeds the county share.](#)

[The City of Rancho Cordova requested sound walls and landscaping at Mather Field Road and Zinfandel Road interchanges. All of the sound walls qualify under the FHWA's noise protocols, and will be part of the project. Landscaping will be included as community enhancements at both of the interchanges with input from the city. The city also requested constructing the tie back walls at Routier,](#)

Mather Field and Zinfandel overcrossing. The cost of community enhancement features for Rancho Cordova will be about \$8 million.

## 1.8 SUBSURFACE TEST DRILLING

This project includes subsurface test drilling at 5 structures: Manlove Pedestrian Over-Crossing (POC), Routier Road Over-Crossing, Mather Field Road Over-Crossing, White Rock POC, and Zinfandel Drive Over-Crossing. Subsurface drilling will also occur at proposed sound wall location. The drilling plans for each site includes the following features:

### Drilling Method and Type of Equipment

Track, rubber tired, truck or trailer mounted drill rigs will be used to drill these borings. Truck mounted drill rigs weighing from approximately 35,000 to 48,000 pounds will be utilized for the field investigation. Rig dimensions are approximately 8 ft. wide by 30 ft long. A tender truck carrying water and other drilling supplies accompanies the drill rig. A three-person crew headed by a lead-worker will operate the unit. A party chief (either a geologist or engineer) is in charge of the overall drilling operation at the site.

### Drilling Fluid

The drilling fluid is a mixture of either bentonite or polymer and water. The drilling fluid is circulated through the boring via a closed system. Drill cuttings settle out of the fluid in the mud tank and then are re-circulated through the boring. The drill fluid and cuttings will be stored in barrels and disposed of at an approved waste site when the investigation is completed.

### Spill Protection

In the event of an unexpected mud spill, the drillers will immediately stop drilling, contain any escaping fluids and mitigate any further potential fluid loss. The drillers will verify with the Party Chief whether they should recommence drilling. The Party Chief is expected to notify the Caltrans District Biologist if there is any concern.

### Noise Level

The noise levels typically produced by a Mobile B-47 rig with a standard safety hammer are listed in the table below.

Distance from rig (feet)	Drilling	Hammering
5	92.1 dB	93.4 dB
25	73.3 dB	79.9 dB
50	69.0 dB	72.8 dB
75	65.5 dB	69.3 dB
100	64.2 dB	No Data Available

## 1.9 PROJECT SCHEDULE

The current project schedule is as follows:

- Circulate Draft EIR/EA: December 2006 – February 2007
- Final EIR/EA: June 2007
- Begin Construction: December 2009
- End Construction: December 2014

## 1.10 PROJECT BACKGROUND AND HISTORY

The project has been included in various studies, plans, and programs since 1990. These include:

- Metro Study (Sacramento Council of Governments (SACOG))
  - 1989 study that recommended a regional HOV lane study (see next bullet).
- High Occupancy Vehicle System Planning Study for the Sacramento Metro Area
  - SACOG study in 1990 recommending HOV lanes on US 50 between downtown Sacramento and Shingle Springs.
- Evaluation of Impact of HOV Lanes on Other Transportation Programs
  - Initiated by SACOG in 1993 to determine the optimum phasing strategy for HOV lanes in the US 50 corridor. The study also evaluated whether or not light rail extensions and HOV lanes compete for the same travelers on the corridor. The study became the core of the US 50 Corridor Major Investment Study (see below).
- Measure A Strategic Plan Update
  - 1995 study by the Sacramento Transportation Authority that listed projects in rank order for funding priority by using Measure A transportation sales tax funding. US 50 HOV projects were ranked 2, 12, and 15 (out of 26 state highway improvement projects).
- Metropolitan Transportation Plan (MTP), 1996 Update
  - Updated by SACOG in 1996, the MTP included HOV lanes from 15th/16th Streets downtown to Silva Valley Parkway. It also included exclusive carpool ramps at 15th/16th Streets.
- Major Investment Study (MIS)
  - The MIS was produced by SACOG after a four-year regional discussion and consensus building process that involved various local agencies and the public.
  - The MIS included a number of initiatives designed to maintain mobility and provide travel choices along US Highway 50. The addition of HOV lanes between Sacramento and El Dorado Hills was one of the initiatives.
  - The SACOG Board adopted the MIS in December 1997.
- Metropolitan Transportation Improvement Program (MTIP)
  - The program includes a listing of all transportation-related projects requiring federal funding or other approval by the federal transportation agencies.
  - The HOV project was included in the Final 2003/2005 MTIP.
- Metropolitan Transportation Plan 2025 (MTP)
  - The MTP, adopted in 2002, is a 23-year plan for transportation improvements in a six-county region (El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba).
  - The HOV project is included in the list of Sacramento County (Tier 1: Publicly-Funded).
- State Transportation Improvement Program 2006 (STIP)
  - Selected projects are incorporated into the Regional Transportation Improvement Program (RTIP) that SACOG forwards to the California Transportation Commission for inclusion in the STIP. The STIP covers a five-year period and is updated every two years.

- The project is included in the list of projects in the 2006 STIP.
- Measure A Half-Cent Sales Tax, Sacramento County 2004
  - The Measure A Half-Cent sales tax extended an existing half-cent from 2009 to 2030.
  - The HOV project was listed under Freeway Safety and Congestion Relief Program, Regional Bus/Carpool Lane Connectors/Extensions in the 2004 election ballot. All projects included on the ballot are also included in the 2025 MTP.
  - According to Sacramento County Registrar of Voters, countywide, the measure passed with approximately 75% approval by voters. A more detailed approval breakdown is as follows:
 

▪ City of Sacramento	76%
▪ City of Rancho Cordova	78%
▪ City of Folsom:	76%
▪ Unincorporated Sacramento County	74%
- Sacramento Region Blueprint
  - Joint effort of SACOG and Valley Vision.
  - SACOG conducted two years of study and public involvement, resulting in the adoption the Blueprint's Preferred Blueprint Scenario in December 2004. The Blueprint scenario adopted became part of SACOG's Metropolitan Transportation Plan update for 2005, a formal document that serves as a long-range transportation plan for the six-county region. It also will serve as a framework to guide local government in growth and transportation planning through 2050.
- California Transportation Plan 2025
  - The California Transportation Plan 2025 is a blueprint for meeting the State's future transportation needs.
  - Specific policies and strategies include completing the HOV network and maximizing the use of HOV lanes by encouraging transit operators to provide express bus service on HOV lanes.
- Proposition 1B, California State Propositions 2006
  - The proposition directs the State of California to sell \$19.9 billion in general obligation bonds to fund state and local transportation and safety projects, including completing the state's network of carpool lanes.
  - The bus/carpool project was one of the projects listed in the proposition.
    - Statewide, according to the Secretary of State's office, Proposition 1B passed with approximately 61% approval by voters. In Sacramento County, voters approved Proposition 1B by 62%.
  - On March 15, 2007, the California Transportation Commission adopted a program of projects for the Corridor Mobility Improvement Account (CMIA), including a portion of proposed bus/carpool lanes on US 50 from Watt Avenue to Sunrise Boulevard.

## 1.11 PERMITS AND APPROVALS NEEDED

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval	Status
California Water Resources Control Board	Statewide National Pollutant Discharge Elimination System (NPDES) Permit	Statewide permit obtained in 1999.



The City of Sacramento, Sacramento County, State Office of Historic Preservation, and Central Valley Regional Water Quality Control Board are designated as responsible agencies. The California Department of Fish and Game is the trustee agency.

**Table 1-1. US 50 Daily Traffic Volumes**

Segment		Existing (2004)	Year 2030
From	To		
I-5	10 <sup>th</sup> Street	222,000	349,000
10 <sup>th</sup> Street	16 <sup>th</sup> Street	231,000	363,100
16 <sup>th</sup> Street	SR 51 – SR 99	254,000	399,300
SR 51 – SR 99	Stockton Blvd.	224,000	363,800
Stockton Blvd.	59 <sup>th</sup> Street	215,000	349,200
59 <sup>th</sup> Street	65 <sup>th</sup> Street	200,000	324,800
65 <sup>th</sup> Street	Howe Ave.	205,000	332,900
Howe Ave.	Watt Ave.	183,000	297,200
Watt Ave.	Bradshaw Road	184,000	298,800
Bradshaw Road	Mather Field Road	180,000	292,300
Mather Field Road	Zinfandel Drive	169,000	278,900
Zinfandel Drive	Sunrise Blvd.	149,000	245,900
Sunrise Blvd.	Hazel Ave.	127,000	222,800

Source: Caltrans Office of Travel Forecasting & Modeling, 2006.

**Table 1-2. Mainline Level of Service (LOS), Existing Conditions (Year 2005)**

Segment	Westbound A.M. Peak Hour		Eastbound P.M. Peak Hour	
	Volume	LOS	Volume	LOS
Sunrise Blvd. to Zinfandel Ave.	6,100	F	6,200	F
Zinfandel Ave. to Mather Field Road	6,300	F	6,400	F
Mather Field Road to Bradshaw Road	6,500	F	6,500	F
Bradshaw Road to Watt Ave.	7,000	F	6,800	F
Watt Ave. to Howe Ave.	7,900	F	6,700	F
Howe Ave. to 65 <sup>th</sup> Street	7,300	F	7,300	F
59 <sup>th</sup> Street to Stockton Blvd.	7,600	F	7,400	F
W & X Couplet	7,100	F	7,000	F

Source: Traffic Study Report, District 3 – Traffic Operations, 2006

**Table 1-3. Mainline Level of Service (LOS), Year 2030 Constrained Volumes**

Segment	Westbound A.M. Peak Hour		Eastbound P.M. Peak Hour	
	Volume	LOS	Volume	LOS
Sunrise Blvd. to Zinfandel Ave.	6,400	F	5,900	F
Zinfandel Ave. to Mather Field Road	7,000	F	6,000	F
Mather Field Road to Bradshaw Road	7,600	F	6,800	F
Bradshaw Road to Watt Ave.	7,700	F	6,400	F
Watt Ave. to Howe Ave.	7,600	F	6,800	F
Howe Ave. to 65 <sup>th</sup> Street	6,400	F	7,300	F
59 <sup>th</sup> Street to Stockton Blvd.	7,000	F	7,100	F
W & X Couplet	6,900	F	7,000	F

Source: Traffic Study Report, District 3 – Traffic Operations, 2006

**Table 1-4. Accident Rate Summary (7-1-02 to 6-30-05)**

Location	Actual Accident Rate (accidents/mvm*) 7/1/02 to 6/30/05			Average Accident Rate (accidents/mvm*)		
	Fatal	Fatal + Injury	Total**	Fatal	Fatal + Injury	Total**
Oak Park Interchange to Sunrise Blvd	0.002	0.29	1.08	0.005	0.29	0.91

Source: Caltrans District 3 Office of Freeway Operations, July 2006.

\* Million vehicle miles

\*\* All totals include fatal, injury, *and* property-damage only collisions

**Table 1-5. Summary of Alternatives**

<b>Alternative</b>	<b>Length (miles)</b>	<b>Western Limit</b>	<b>Proposed Sound Walls</b>	<b>Mainline Widening</b>	<b>Structures Widened</b>	<b>New Right of Way</b>	<b>Total Cost</b>
10D-1	12.8	26th Street	WB2, WB4, WB5, WB6, WB7, WB8, WB9, EB9, EB11A, EB11B, EB12	Inside widening from Stockton Blvd. to Bradshaw Road  Outside widening from Bradshaw Road to Sunrise Blvd.	Elmhurst Viaduct Brighton OH Folsom Blvd. UC State College UC West Citrus OH*	Small slivers of commercial property along Zinfandel Drive EB off- and on- ramps	\$161 million
10D-3	7	Watt Ave.	WB4, WB5, WB6, WB7, WB8, WB9, EB9, EB11A, EB11B, EB12	Inside widening from Watt Ave. to Bradshaw Road  Outside widening from Bradshaw Road to Sunrise Blvd.	West Citrus OH*	Small slivers of commercial property along Zinfandel Drive EB off- and on- ramps	\$127 million
No-Build	NA	NA	None	None	None	None	NA

\* Widening to the inside

